DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-028345
Date Inspected: 06-Sep-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 2130
Location: Job site

CWI Name: Salvador Merino

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG

Summary of Items Observed:

Quality Assurance Inspector (QAI) Rodney Patterson was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

The QAI observed ABF/JV qualified welder Richard Garcia #5892 performing Carbon Arc Gouging (CAG) for the repair the splice between the HPS-485 longitudinal deck stiffener to the K-plate extension web splice at panel point 120.6. The weld is designated as 13E-EK-SK1. The ABF/JV QC inspector Salvador Merino was observed performing magnetic particle testing (MT) in way of the repair excavations at the following locations,

13E-EK-SK1
Y=1720 Depth 11, Width 20mm, Length 105mm

The ABF/JV qualified welder Richard Garcia #5892 was observed later in the shift performing Shielded Metal Arc Welding (SMAW) in the 2G position utilizing the Caltrans approved Welding Procedure Specification ABF-WPS-D1.5-1004-Repair for the repair of the splice between the HPS-485 longitudinal deck stiffener to the K-plate extension web splice at panel point 120.6. The weld is designated as 13E-EK-SK1. The weld surface and surrounding area was brought to temperature by the use of induction heaters. The welding at this location was completed during the shift.

Ultrasonic Testing OBG

This QA performed verification Ultrasonic Testing (UT) on Complete Joint Penetration (CJP) deck drop-in weld

connections for lift 2W and 12E. The welds were previously tested and accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. The QAI's findings are as follows;

Lift 12E Longitudinal Deck Stiffener splice (Weld No. 12E/13E-LS1)
The QAI performed a minimum of 10% verification of this weld. No rejectable indications were observed at the time of inspection.

Lift 12E Longitudinal Deck Stiffener splice (Weld No. 12E/13E-LS2)
The QAI performed a minimum of 10% verification of this weld. A total of one rejectable indication was observed at the time of inspection.

Lift 12E Longitudinal Deck Stiffener splice (Weld No. 12E/13E-LS3)
The QAI performed a minimum of 10% verification of this weld. No rejectable indications were observed at the time of inspection.

Lift 2W Deck access hole stiffener splice (Weld No. DAH-2W-PP13.5-W2-LS-E)
The QAI performed a minimum of 10% verification of this weld. No rejectable indications were observed at the time of inspection.

Lift 2W Deck access hole stiffener splice (Weld No. DAH-2W-PP13.5-W2-TS)
The QAI performed a minimum of 10% verification of this weld. No rejectable indications were observed at the time of inspection. During the random visual inspection adjacent to the weld ultrasonically tested the QAI observed that ABF welding personnel utilized a gas torch in way of the lift 2W deck access hole insert, in order to transfer rejectable indications found during QC ultrasonic testing (UT). The weld is designated as DAH-2W-PP13. 5-W2 and was heated at Y=415, Y=1195 and Y=3365. The QA task leader was notified in writing of the non-compliant issue for further discussion with the Caltrans Structural Materials Representative (SMR) and ABF Management.

The QAI observed ABF/JV qualified welder Richard Chouinard performing Carbon Arc Gouging (CAG) for the repair of the edge plate splice between lift 13E/14E designated as 13E/14E-G. The ABF/JV QC inspector Salvador Merino was observed performing magnetic particle testing (MT) in way of the repair excavations at the following locations,

Weld 13E/14E-G
Y=0 Depth 13, Width 25mm, Length 85mm
Y=100 Depth 11, Width 25mm, Length 80mm

The ABF welder Richard Chouinard was observed later in the shift performing Shielded Metal Arc Welding (SMAW) in the 3G position utilizing the Caltrans approved Welding Procedure Specifications ABF-WPS-D1. 5-1004-Repair at the locations previously noted. The weld and surrounding area was brought to a temperature of 325ºF by the use of a gas torch and maintained throughout the welding process. The repairs were performed in accordance with approval for repair document RWR201208-35 and RWR201208-36.

Magnetic Particle Testing (OBG 12E)

This QA Inspector performed a minimum of 15% verification Magnetic Particle Testing (MT) of the lift 12E Longitudinal Deck Stiffener splice This QA Inspector generated a TL-6028 MT report on this date. The results of the inspection are as follows;

Lift 12E Longitudinal Deck Stiffener splice (Weld No. 12E/13E-LS2)
The QAI performed a minimum of 15% verification of this weld from face A/B. No rejectable indications were observed at the time of inspection.

The QAI observed ABF/JV qualified welder Richard Garcia #5892 performing Carbon Arc Gouging (CAG) for the repair transverse deck panel drop-in splice designated as 13E-PP122.2. The ABF/JV QC inspector Salvador Merino was observed performing magnetic particle testing (MT) in way of the repair excavations at the following locations,

13E-PP122.2
Y=4890 Depth 11, Width 20mm, Length 60mm

The ABF/JV qualified welder Richard Garcia #5892 was observed later in the shift performing Shielded Metal Arc Welding (SMAW) in the 4G position utilizing the Caltrans approved Welding Procedure Specification ABF-WPS-D1.5-1004-Repair. The weld surface and surrounding area was brought to a temperature of 325ºF by the use of a induction heaters and maintained throughout the welding process. The repairs were performed in accordance with approval for repair document RWR201208-103 due to the length of the repairs previously made to this weld.

The QAI observed at random intervals; ABF personnel performing fit-up of the deck access holes for lift 13E and 13W between panel points 124 and 124.5. The QAI noted the backing bars to be segmented and non-continuous in way of the east and west radii of the deck insert. The welds are designated as DAH-13E-124.5-E5 and DAH-13W-124.5-W5. The root passes of both deck inserts were observed to be welded prior to the shifts end. The QA task leader was notified in writing of the non-compliant issue for further discussion with the Caltrans Structural Materials Representative (SMR) and ABF Management.

The QAI spent a portion of this shift reviewing and documenting the status and completion of various production welding tracking logs for lift 13E-14E drop-in deck work currently in-process. The QA recorded the information on the OBG tracking log.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:
As noted above

WELDING INSPECTION REPORT

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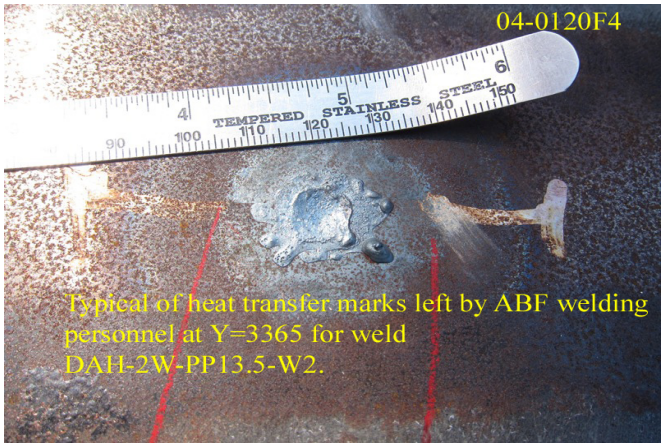

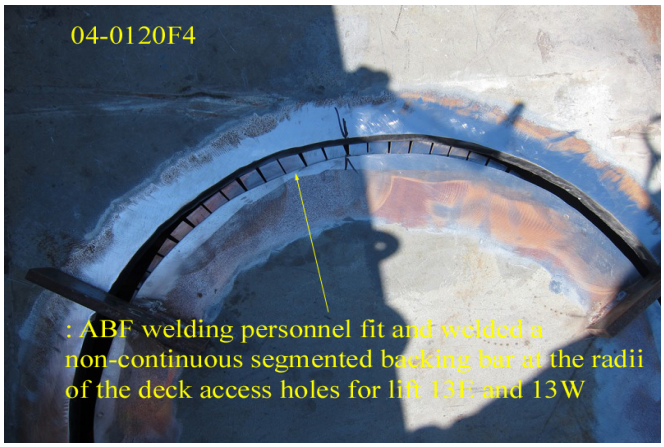

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

Inspected By:	Patterson,Rodney	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer